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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,616	11/23/2005	Tommy Kristensen Bysted	939-012101-US (PAR)	1359
2512	7590	12/09/2009		
Perman & Green, LLP				
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Stratford, CT 06614				
EXAMINER				
ZEIWAR, SAYED T				
ART UNIT		PAPER NUMBER		
2617				
MAIL DATE		DELIVERY MODE		
12/09/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/523,616

**Applicant(s)**

BYSTED ET AL.

**Examiner**

SAYED T. ZEWARDI

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-20 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20, 23-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed on 06/17/2009 have been fully considered but they are moot in view of new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakoda et al. (US 6088345) in view of Barlev et al. (US 7133441).

With respect to claim 12, Sakoda discloses a transmitter for transmitting blocks of digital data (**See Sakoda's figure 1(21, 24, 25), col.4 lines 1-21, lines 53-56, col.6 lines 11 19 where transmitting blocks of digital data is involved with emailing and facsimile**), the transmitter comprising processing means (**See Sakoda's figure 1(16, 22), col.3 lines 46-49, 63-65**) including a memory storing data representing a set of processing manners (**See Sakoda's figure 1(24, 25), col.4 lines 53-65**), said data defining a block size and a transmission time therefor for each processing manner (**See Sakoda's col.4 lines 1-37**), wherein the processing means is configured to:

process at least one data flow, the or each data flow being processed according to manners selected from said set of processing manners (**See Sakoda's figure 1 and figure 10, col.3 lines 42-67**); concatenate data from the or each data flow and a code identifying said selected manner or manners to produce a block of concatenated data (**See Sakoda's figure 1 and figure 10, col.3 lines 42-67, col.4 lines 1-37**); interleave said block (**See Sakoda's figure 5, col.8 lines 21-27, figure 6, col.9 lines 13-25**). Sakoda discloses everything claimed as applied above to claim 12, except for explicitly reciting that the depth of said interleaving corresponds to a transmission time not greater than the least of said defined transmission times. In analogous art, Barlev et al. discloses a communication system wherein depth of said interleaving corresponds to a transmission time not greater than the least of said defined transmission times (**See Barlev's figure 11(362), col.32 lines 5-23**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sakoda by specifically incorporating an interleaver with variable interleaving depth in order to transmit blocks of digital data, as disclosed by Barlev.

With respect to claim 23, Sakoda discloses a method of transmitting a block of digital data (**See Sakoda's figure 1(21, 24, 25), col.4 lines 1-21, lines 53-56, col.6 lines 11-19 where transmitting blocks of digital data is involved with emailing and facsimile**), the method comprising: establishing data representing a set of processing manners, said data defining a block size and a transmission time therefor for each processing manner (**See Sakoda's figure 1(24, 25), col.4 lines 53-65, lines 1-37**), processing at least one data flow, the or each data flow being processed according to

manners selected from said set of processing manners (**See Sakoda's figure 1 and figure 10, col.3 lines 42-67**); concatenating data from the or each data flow and a code identifying said selected manner or manners to produce a block of concatenated data (**See Sakoda's figure 1 and figure 10, col.3 lines 42-67, col.4 lines 1-37**); interleaving said block (**See Sakoda's figure 5, col.8 lines 21-27, figure 6, col.9 lines 13-25**).

Sakoda discloses everything claimed as applied above to claim 23, except for explicitly reciting that the depth of said interleaving corresponds to a transmission time not greater than the least of said defined transmission times. In analogous art, Barlev et al. discloses a communication system wherein depth of said interleaving corresponds to a transmission time not greater than the least of said defined transmission times (**See Barlev's figure 11(362), col.32 lines 5-23**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sakoda by specifically incorporating an interleaver with variable interleaving depth in order to transmit blocks of digital data, as disclosed by Barlev.

With respect to claim 24 and 13, Sakoda discloses a method wherein said defined transmission times are inherently integer multiples of the transmission time corresponding to said interleaving depth (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25**).

With respect to claim 25, Sakoda discloses a method including receiving a signal defining said set of processing manners (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25**).

With respect to claim 26, Sakoda discloses a method including storing data representing a plurality of processing manners and selecting from said stored data in response to said signal defining said set of processing manners (**See Sakoda's figure 1(24, 25), col.4 lines 53-65**).

With respect to claim 27, Sakoda discloses a method wherein each processing manner includes an inherent interleaving process definition (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25**).

With respect to claim 28, Sakoda discloses a method wherein interleaving according to an interleaving process definition is only performed if the transmission time of the same processing manner is greater than the least of the transmission times of said set (**See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25**).

With respect to claim 29, Sakoda discloses a method wherein said block is transmitted by radio waves (**See Sakoda's figure 1(21, 13, 11, 12), col. 3 lines 22-41**).

With respect to claim 11, Sakoda discloses a transmitter wherein the processing means includes a memory storing data representing a set of processing manners (**See Sakoda's figure 1(24, 25), col.4 lines 53-65**), said data defining a block size and a transmission time therefor for each processing manner (**See Sakoda's figure 1(24, 25), col.4 lines 53-65**). Sakoda discloses everything claimed as applied above to claim 11, except for explicitly reciting that the depth of said interleaving corresponds to a transmission time not greater than the least of said defined transmission times. In analogous art, Barlev et al. discloses a communication system wherein depth of said interleaving corresponds to a transmission time not greater than the least of said

defined transmission times **(See Barlev's figure 11(362), col.32 lines 5-23)**. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Sakoda by specifically incorporating an interleaver with variable interleaving depth in order to transmit blocks of digital data, as disclosed by Barlev.

With respect to claim 14, Sakoda discloses a transmitter including a receiving means for receiving a signal defining said set of processing manners **(See Sakoda's figure 1(21, 13), col.4 lines 1-21, col.9 lines 13-25)**.

With respect to claim 15, Sakoda discloses a transmitter wherein the processing means includes a memory storing data representing a plurality of processing manners **(See Sakoda's figure 1(24, 25), col.4 lines 53-65)** and the processing means is configured for selecting from said stored data in response to said signal defining said set of processing manners **(See Sakoda's figure 1(21, 13), col.4 lines 1-21, col.9 lines 13-25)**.

With respect to claim 16, Sakoda discloses a transmitter wherein each processing manner includes an interleaving process definition **(See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25)**.

With respect to claim 17, Sakoda discloses a transmitter wherein the processing means is configured such that the interleaving according to an interleaving process definition is only performed if the transmission time of the same processing manner is greater than the least of the transmission times of said set **(See Sakoda's figure 1(21), col.4 lines 1-21, col.9 lines 13-25)**.

With respect to claim 18, Sakoda discloses a transmitter wherein transmitter circuitry comprises radio transmitter circuitry (**See Sakoda's figure 1(21, 13, 11, 12), col. 3 lines 22-41**).

With respect to claim 19, Sakoda discloses a mobile phone (**See Sakoda's figure 1, col.3 lines 22-41**).

With respect to claim 20, Sakoda discloses a base station for a mobile phone network including a transmitter (**See Sakoda's figure 2, col.4 lines 66-67, col.5 lines 1-21**).

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAYED T. ZEWARDI whose telephone number is (571)272-6851. The examiner can normally be reached on 8:30-4:30.
5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sayed T Zewari/

Examiner, Art Unit 2617

/LESTER KINCAID/

Supervisory Patent Examiner, Art Unit 2617